

**TRANSPORT CANADA RESPONSE TO THE INTERIM REPORT
OF THE ENVIRONMENTAL ASSESSEMENT PANEL
ON AIR TRAFFIC MANAGEMENT IN SOUTHERN ONTARIO**

A. Capacity Improvements

1. *Measures to increase ATC staffing must be vigorously pursued, with additional resources committed, if necessary, to ensure that the necessary staffing level is achieved not later than the end of 1994. The necessary level is that required to utilize fully and on a continuing basis, without the use of planned overtime, LBPIA's existing potential capacity of 96 movements per hour.*

Response

Progress to date on ATC training indicates that the Ontario Region will meet its staffing requirements by the June 1994 target date, as outlined in the material provided to the Panel on this subject. It must be stressed, however, that the continued use of planned overtime is a normal consequence of a shift operation and furthermore does not affect airport safety.

It should also be noted that even with full ATC staffing the airport's capacity will be well below the theoretical maximum of 96 movements per hour. Significant changes in the airport's infrastructure, equipment and operations would be required to achieve capacities approaching this level, and even then such capacities would only be sustainable during ideal conditions. As is explained in response to A.3 below, many of these needed changes could not have been made in the absence of a decision on runway expansion.

2. *Transport Canada must take the necessary measures to ensure the implementation of proposed improvements in air navigation technology at LBPIA.*

Specifically, this calls for:

- (a) *the commissioning of the two phases of the Canadian Automated Air Traffic System (CAATS) by the target dates of 1994 and 1996 respectively;*
- (b) *the installation at LBPIA of the Microwave Landing System (MLS) capability by 1996; and*
- (c) *the immediate implementation at LBPIA, of the Radar Modernization Project (RAMP) already behind schedule.*

Response

Current indications are that phase 1 of the Canadian Automated Air Traffic System (CAATS) will be completed by the end of 1995-96, and phase 2 by the end of 1996-97. This system will improve airspace capacity by improving operational efficiency. However, the long term capacity problem at LBPIA is one of runway capacity, not airspace capacity.

The implementation of curved MLS approaches, allowing better meshing of streams of aircraft on converging approach paths, could give some capacity increase to the extent that present ATS equipment does not permit aircraft to be sequenced in the most efficient manner. Curved approaches may also be possible in future based on emerging technologies such as Satellite Navigation combined with Flight Management Systems. However, ATS must be able to precisely determine separations and precisely sequence aircraft. The implementation of such sequencing techniques cannot occur in the short term and in any event would not result in major capacity increases over existing techniques.

While delays have been encountered with the implementation of RAMP at LBPIA, delivery of the software necessary to bring the system on-line is expected in the next few months. It should be noted, however, that the impact on runway capacity will be negligible.

3. *Construction of proposed improvements to the air side physical infrastructure such as high speed turnoffs, taxiway system capacity and geometry, and manoeuvring areas, should be accelerated, to ensure their completion not later than 1996.*

Response

The improvements which would be made to the taxiway system in anticipation of new runways being added differ significantly from the improvements that would be made to optimize the existing three runway system, i.e. the Base Case. Without a decision on whether runways will be added at LBPIA, accelerating the construction of the Base Case improvements would have run the risk of either incurring costly over-expenditures, or of constructing taxiways that would be incompatible with future new runways.

B. Runways

1. *No decision should be taken at this time with regard to the construction of one or more additional east/west runways at LBPIA. The possible future need for such runways, together with other options for the accommodation of traffic growth, should be examined in the context of Transport Canada's long-term plan for aviation in Southern Ontario.*

Response

A key element of the government's aviation planning strategy, as outlined in the December 1989 report entitled "Aviation in Southern Ontario - A Strategy for the Future" is that LBPIA would continue to be the major airport for the area and the runway system would be expanded to its optimum technical, economic and environmental capacity. Once the limits of LBPIA were established, the roles and timing of development of the other airports in the region, and the Pickering lands, would be examined.

The Panel has concluded that the proposed new east/west runways would result in very little incremental change to the noise environment, and that there are no air, water, or other physical concerns that cannot be adequately addressed. Based on this assessment of the central issues to be addressed in the environmental review, Transport Canada intends to complete the zoning for these runways and to proceed with phase two of the Southern Ontario strategy on the basis that LBPIA will eventually have six runways. The construction of the east/west runways will be delayed, however, until such time as warranted by demand.

2. *The proposal to construct the runway 15R-33L as described in the EIS, should not be further pursued, as the adverse social impact which it would create would outweigh the modest increase in north/south capacity it would provide.*

Response

As is indicated in the response to recommendations B.3 and 4 below, Transport Canada has determined that the Panel's preferred solution to the problem of insufficient capacity in the north/south direction is not feasible for safety reasons. This leaves Transport Canada's proposed north/south runway as the most, if not the only, viable solution.

The need for a second crosswind runway is not dependent on future traffic growth. Rather, it has been needed for many years. Its absence has caused service disruptions, which result in significant costs to airlines and passengers and are damaging to the image of the airport and the metropolitan area it serves.

Accordingly, Transport Canada intends to begin construction of the proposed north/south runway as soon as possible. It will be used only when crosswind conditions mandate its use for safety reasons (on average less than five per cent of the time for residents off its southern projection, and one per cent of the time for those off its northern extension), and primarily for arrival operations, which are much quieter than departures.

3. *Transport Canada should immediately undertake detailed studies to determine the safety and operational feasibility, as well as the capacity, noise profile and cost/benefit implications, of a new 4500-foot north/south runway. This runway would be located parallel to and 4300 feet south-west of the existing north/south runway and would be displaced toward the northwest airport boundary, so that its northerly and southerly thresholds are equidistant from the closest residential areas of Brampton and Mississauga respectively. The runway would be operated simultaneously with, but fully independently of, the existing north/south runway, and would serve all arriving and departing aircraft that are capable of safe operation to and from its limited length.*
4. *The Panel believes that such studies will demonstrate that such a runway would:*
 - (a) *be operationally feasible without compromise of safety standards;*
 - (b) *increase north/south capacity from the present 50 hourly movements to approximately 86, thus reducing the existing directional imbalance very substantially;*
 - (c) *have a positive net present value; and*
 - (d) *have a noise impact in residential areas, expressed in SEL terms, approximately 5 dBA below that of the runway 15R-33L proposed in the EIS.*

The Panel therefore recommends that such a runway be constructed promptly provided that studies (a) to (d) above confirm the Panel's belief that this runway is a satisfactory solution to the problem of directional imbalance in capacity at LBPIA.

5. *If these studies prove conclusively that such a runway is not feasible, this would make it more urgent to proceed with the consideration of Transport Canada's long-term plan referred to in B.1 above.*

Response (3, 4, and 5)

Aviation Safety experts from Transport Canada, the Canadian Airline Pilots Association and the Canadian Business Aircraft Association have reviewed the Panel's recommendation and have identified several safety deficiencies inherent in the type of operation the Panel has recommended. These concerns primarily relate to the segregation of aircraft routes. Because of safety concerns, the current air traffic operations on the existing east/west parallel runways were developed on the principle of segregating routes by using the runway most closely aligned with route of flight (no airborne crossovers). The Panel's proposal is a significant deviation from this principle. With the recommended 4500-foot north/south runway, it would be necessary to "cross" a large number of departure and arrival routes, thereby introducing substantial inter sector coordination and more complex procedures. It was concluded that while procedures could be developed to address crossover situations, the potential for separation losses between traffic during such operations was unacceptably high. This mode of operation, coupled with the requirement for aircraft to cross the existing runway when moving between the new runway and the air terminal building and cargo areas, would not allow for a significant capacity increase over the current single runway operation.

Also, the aircraft types that could use this runway accounted for only about 15 per cent of the aircraft activity at LBPIA in 1992.

C. Airport Operations

1. *Transport Canada should recognize commercial general aviation as a legitimate user of LBPIA, and should take the steps and introduce the measures necessary to ensure that this sector of the aviation community is guaranteed the same degree of freedom of access to LBPIA as is now afforded to other users, particularly the airlines. The distribution of slots within the cap system should more equitably reflect demand from legitimate users.*

2. *In particular, Transport Canada should completely overhaul the management of the slot reservation system. Slot reservations at present are assigned in hourly blocks. This is not nearly precise enough to avoid "bunching"; a much shorter period should be used. Reservations should not be allocated unless the need for them is fully established, and should be monitored to ensure they are used. Slot allocations not currently needed or not used should be withdrawn.*

Response (1 and 2)

Transport Canada recognizes the importance of the sector described in the Panel's report as "commercial general aviation." However, consistent with the role defined by Transport Canada for LBPIA, highest priority for access to its facilities is afforded to airlines carrying passengers. Reconsideration of government policy regarding the role of the airport was beyond the scope of the environmental review.

Since the inception of the slot reservation system, Transport Canada has, in consultation with the users, made several modifications aimed at making the system responsive to the needs of general aviation and air carriers. Since early 1992, slot reservations have been assigned in 15-minute blocks, to reduce "bunching." Use-it-or-lose-it rules are in place to prevent air carriers from protecting slots for future advantage, and in non-peak hours general aviation users no longer require reservations. Transport Canada is open to suggestions from the users for further improvements.

3. *Transport Canada should immediately commence the process leading to the establishment of a Local Airport Authority (LAA) that would be given responsibility not only for LBPIA, but also as a minimum for all airports serving the GTA now and in future.*

Response

Transport Canada is aware of initiatives under consideration within the Greater Toronto area to develop a local airport authority, and would welcome proposals to negotiate the transfer of LBPIA and other Southern Ontario airports. Any decision to proceed, however, must originate from the interested group(s).

4. *Measures to improve the standard and coordinate the practices of waste management at LBPIA should proceed, regardless of any expansion at the airport. This should be handled through a subcommittee of the Community Liaison Committee working with the Airport General Manager's Office. Re-use and recycling should be required formally of all tenants as well as of government operations.*

Response

Airport management has been actively promoting re-use and recycling practices at LBPIA since at least 1990, and is assuming greater management control over the waste management practices of tenants. Beginning in April 1993, one staff member will be dedicated full-time to the implementation of an airport-wide waste reduction/recycling program. As well, a committee, comprised of Transport Canada employees and airport tenants, is being established to set goals, share information and promote waste reduction/recycling throughout the airport.

D. Safety Considerations

1. *The measures recommended in III.A. 1, 2 and 3 above are important, not only because they will increase the operating efficiency and effective capacity of the existing three runway system, but also because they will significantly enhance operational safety.*
2. *Transport Canada should review its various programs affecting air operations at LBPIA, to identify all situations which may not be fully satisfactory from a safety point of view. In its conclusions relating to safety, as set out in Section III.B of this chapter, the Panel has identified several examples which it believes fall in this category; there may well be others.*
3. *Transport Canada should immediately determine and implement the corrective action necessary in all such cases.*
4. *If Transport Canada's existing authority and resources are not sufficient for such implementation, the government should immediately make whatever adjustments are necessary.*
5. *It is essential that the policy of giving precedence to safety over all other considerations be made totally effective in practice.*

Response

Transportation safety remains the top priority of Transport Canada. Each year the department devotes considerable time, energy and resources to maintain and improve the safety of Canada's national transportation system. This commitment to safety is no less important with respect to aviation.

Transport Canada notes the fact that the Panel has emphasized the importance of safety throughout its report, but would point out that there are no situations at LBPIA unsatisfactory from a safety point of view. Since this was not a safety review, not all the factors contributing to the safe operation of the airport were described to the Panel.

Safety is, and always has been, given precedence over all other considerations.

E. Community Relations

1. Transport Canada should immediately develop and implement a comprehensive program to improve LBPIA's relationship with neighbouring residential communities.
2. The keystone of this program should be the early establishment of the "LBPIA Community Liaison Committee." Its general mandate should be to consider all matters relating to LBPIA development and operations which might impinge in an adverse sense on the quality of life in neighbouring residential areas.
3. The Committee should be chaired by an independent person, neither a local community representative nor a current employee of any government, nominated by the Minister of Transport and confirmed by the Minister of the Environment.
4. Given the mandate to deal with the quality of life in neighbouring residential areas, the composition of this committee should be the following: (1) the airport manager; (2) the air traffic control manager; (3) one representative from the airline companies; (4) one representative from the Canadian Airline Pilots Association; (5) one representative from senior staff in each of Mississauga, Brampton and Etobicoke; and (6) one representative of local residents in each of Mississauga, Brampton and Etobicoke who have concerns about the impact of LBPIA on their quality of life. The latter should be designated by community groups, such as those which appeared before the Panel to express the environmental concerns of local residents, rather than by municipal governments.
5. The Committee should meet at least quarterly, and more frequently as necessary. It should have sufficient financial and staff resources, provided by Transport Canada, to enable it to function effectively.
6. A budget should be proposed by the chairperson for approval by Transport Canada.
7. The Committee should have the power to appoint sub-committees.
8. No proposed changes in LBPIA airside equipment, facilities or operational procedures which might appreciably alter aircraft noise impacts should be authorized, until such changes and their probable consequences have been discussed in the committee.
9. The meetings should normally be open to the public and each meeting should provide an appropriate opportunity for questions and answers from the public. All reports and financial statements of the committee should be publicly available and the committee should operate using the principles of consensus decision-making.
10. In conjunction with the establishment of the Community Liaison Committee, LBPIA should develop an enhanced and substantially more effective program for informing local residents of developments or proposals likely to be of interest or concern to them. To be effective, this program must be allocated sufficient resources.

11. *Activity reports from the noise complaints office should be given regularly to the committee.*
12. *At an early meeting of the Community Liaison Committee, LBPIA management should present a review of current noise abatement procedures required in connection with arrivals and departures, to include an outline of optional changes which might further reduce noise impacts.*
13. *With the assistance of the improved navigational aids to be introduced shortly, the observance of noise abatement procedures should be monitored on a continuing basis and periodic reports on infractions, with full information on follow-up action, should be submitted to the Community Liaison Committee.*

Response (1 through 13)

The issue of airport development and expansion has been discussed extensively over the years at informal meetings and at formal committees such as the Tri-Municipal and Community Consultative Committees. During the EARP hearings, a number of intervenors expressed dissatisfaction with the adequacy, timeliness and effectiveness of LBPIA's communications with the community at large. Information about operational changes which have an impact on surrounding areas has always been released by way of news releases, letters from the Airport General Manager to local mayors, and through the Tri-Municipal Committee and Community Consultative Committee. As well, information regarding noise complaints is included in the minutes of these two committees. Through these vehicles stakeholders are made fully aware of developments at LBPIA. However, it is recognized that under this framework residents were often informed indirectly, and sometimes belatedly, of operational changes or developments at LBPIA.

Accordingly, immediately following the completion of the environmental hearings, the Airport General Manager made a commitment to improve communications with the airport's publics. Since then, the airport has enhanced its communication program and increased the frequency of activities such as Open Houses, Community Days, tours and briefings to ratepayers groups and municipal representatives. While airport management is pleased with the success of these activities, it recognizes that there is a need to widen the scope of its information exchange mechanisms to ensure effective two-way communications. With this objective in mind, airport management is currently in the process of organizing focus group sessions to reach a consensus on the most appropriate communications vehicle for LBPIA.

A neutral, independent facilitator has been retained to use the focus group approach and members of the various publics have been invited to attend several group sessions to voice their opinions and make recommendations for improving LBPIA's consultation and communications network. From the input received at these focus group sessions, a working group will be established to recommend a program to balance the needs and demands of all stakeholders. The ultimate goal is to improve community relations in a manner that is mutually beneficial to the airport and the members of all its communities.

14. ~~Transport Canada should intensify its current efforts to abate aircraft noise during the shoulder periods, between 2300 hrs. and midnight and between 0600 hrs. and 0700 hrs. During these periods runway allocations should be governed by noise abatement considerations, and all operations by Stage 2 aircraft should be prohibited except in declared emergencies.~~
15. ~~An overnight curfew should be introduced by April 1, 1993 prohibiting all departures and all arrivals between midnight and 0600 hrs. except for declared emergencies in the same period.~~

Response (14 and 15)

Transport Canada is in complete agreement with the intent of the Panel's recommendations to reduce shoulder hour and night-time activity and in fact has been pursuing this policy for a number of years. However, while Transport Canada is anxious to minimize night aircraft activity and the associated noise annoyance of such operations, it cannot be indifferent to the adverse economic impacts of such initiatives. Such impacts relate particularly to the Airline Charter, Air Cargo, and General Aviation traffic segments as well as their small business clients and the general public. The cost and benefits of these initiatives to minimize night flight activity must be carefully balanced.

Within this broad-based context, however, Transport Canada will continue its efforts to progressively expand the hours of night noise abatement and to increase the stringency of night activity restrictions, especially for noisier Chapter 2 aircraft.

16. ~~Transport Canada should seek to expedite the conversion from Stage 2 to Stage 3 aircraft; in this connection it should introduce a regulatory requirement to parallel that being introduced by the United States.~~

Response

Transport Canada is developing an Air Navigation Order to legislate the phase-out of Chapter 2 aircraft in line with Resolution A28-3 of the International Civil Aviation Organization (ICAO). The commitment was made by the Minister on March 9, 1992, and the draft legislation has been the subject of extensive consultation with the aviation industry. Legislative procedural action is imminent.

17. ~~Continuous noise monitoring should be mandatory. This should be done in all areas within a 10 mile radius of LBPIA perimeter, or which are within an SEL 75 contour for areas that are subjected to noise only 5% of the time, using a network of permanent stations concentrated in known noisy areas and supplemented as needed by portable monitors. The results should be provided to the public, and reviewed periodically in the Community Liaison Committee.~~

Response

Transport Canada intends to expand the number of noise monitoring locations to the full extent of the system's capability. It will seek community involvement, through the new committee structures discussed above, in identifying the optimal locations for the new noise stations within an appropriate noise contour. The results of noise measurement at these stations will be made available to the public through the aforementioned committee structure.

18. ~~Regular air quality monitoring at several stations in different neighbourhoods should be undertaken; the results should likewise be made public, and reviewed periodically in the Committee.~~

Response

Transport Canada has conducted regular air quality monitoring at LBPIA using its mobile air quality system since 1979. An air quality working group, including Environment Canada, Ministry of the Environment, and municipal health officials, is currently being formed to evaluate air quality monitoring needs for the airport. The installation of permanent monitors will be considered by this group. As well, the airport is scheduled for retesting in 1994/95 under Transport Canada's national air quality monitoring program, using mobile equipment. The results of both initiatives will be made available to the public through the aforementioned committee structure.

F. Mitigation of Noise Effects

1. *Transport Canada should, on request, contribute to the cost of appropriate retrofitting with sound insulation of residences and schools, including portables, exposed to high levels of aircraft noise, with an independent investigation on a case-by-case basis to determine what retrofitting is appropriate, as follows:*
 - (a) *above 30 NEF, Transport Canada to pay 25% of cost of retrofitting;*
 - (b) *above 35 NEF, Transport Canada to pay 50% of cost of retrofitting.*
2. *Municipalities should endorse and support property tax adjustments for residential properties exposed to levels of aircraft noise of 30 NEF and above.*
3. *The owners of residences located at or within the 40 NEF contour should have the option of selling their property to Transport Canada, at an "unaffected fair market price."*
4. *Residents living within the 30 NEF contour, of whom it has been medically certified that their health is being damaged by aircraft noise, should have the option of relocating, with the full costs of relocation being recoverable from Transport Canada.*
5. *When a resident or school board has benefited from a mitigation program as recommended in 1 and 3 above, a notation must be added to the deed or property assessment roll information with a provision that no future claim can be made against Transport Canada.*
6. *In the event of a disagreement that cannot be resolved by the parties, either party can require binding arbitration, the costs of which will be shared jointly by the parties.*

Response (1,3,4,5,6)

Transport Canada believes that it is preferable to work at reducing the noise burden, at the source, rather than to give airports a licence to be noisy. Consistent with this policy, it has undertaken to regulate the phase-out of Chapter 2 aircraft and implement other noise abatement and mitigation measures described in Section E.

Also, Transport Canada has done everything that could reasonably have been expected of it, using the technology of the day and the forecasting tools available to it, to forewarn of the current noise environment. These efforts were not emphasized in the material presented to the Panel, because Transport Canada focussed its presentations on explaining the incremental noise impacts that would result from the addition of three runways, which as the Panel agrees are negligible. Had Transport Canada understood that the Panel would focus its attention on the existing noise situation, it would have ensured that the following factors were taken into account.

Firstly, Transport Canada has published guidelines on "Land Use in the Vicinity of Airport" since 1970, with revisions in 1972, 1985, 1989 and 1991. These, used in conjunction with noise forecasts (NEF contours), and CMHC and HWC guidelines, provide useful guidance for residential planners and builders. (CMHC, for example, establishes the 25 NEF contour as the threshold criterion above which analysis of the need for noise insulation would be recommended.)

Secondly, in 1978, within two years of the decision not to pursue the Pickering option, Transport Canada produced 1995 Noise Exposure Projections for LBPIA. These were intended to provide timely information to the municipalities adjoining LBPIA, and potential residents, of the noise environment that was forecast to exist by 1995 with the growth of LBPIA and no development of Pickering. Six years later, in 1984, Transport Canada produced the current revised 1996 NEP contours on which municipal land use plans are now based. The 1996 NEP contours fall within the bounds of the 1995 NEP contours.

Thus, as far back as 1978 adequate information was available to area municipalities on the future airport noise climate, to define the level of "noise comfort" to be provided to their new or infilled residential communities. By-laws to facilitate the availability of this information on deeds of purchase and at new residential developments were enacted by one area municipality. For its part, the airport provided articles to area newspapers detailing the steps a prudent potential purchaser should take before finalizing an agreement to purchase a home.

As for the consultative process between area municipalities and LBPIA, adjoining municipalities routinely seek input from Transport Canada on the acceptability of building developments which they perceive may be impacted by airport noise. For all such requests Transport Canada responds by providing advice, and where necessary discouraging the development, based on its location within the forecast contours. In cases where Transport Canada identifies a high noise impact, it usually advises that should the municipality be determined to proceed with the development, adequate sound insulation should be provided and the potential residents should be warned that at least the external enjoyment of their property could be affected. Transport Canada is unaware of any instance of reversal of municipal intent to approve proposed building development in response to concerns expressed by airport management.

For these reasons, Transport Canada cannot accept any of the recommendations in Section F.

G. Ecological Measures

1. ~~A decision should be made by 1995 and implemented by 1999 concerning the best practicable means for incineration of garbage from international flights.~~

Response

As a result of recent changes to Agriculture Canada's Health of Animals Regulations, garbage from international flights may now be disposed of by controlled landfilling without prior sterilization. This will greatly facilitate a decision, before 1995, on permanent arrangements for the disposal of international garbage arriving at LBPIA.

2. *The measures relating to air and water quality, including arrangements for ongoing monitoring and for ameliorative action to prevent further deterioration, which were referred to in the EIS as elements of the airport's Environmental Management Plan, should proceed forthwith.*

Response

A water quality technician has been employed specifically to monitor water quality and ensure ameliorative actions are carried out as required. Water quality sampling and analysis is currently being carried out on a weekly basis for a variety of parameters and, during the winter months, on a daily basis for glycol.

As indicated in the response to recommendation E18, an air quality working group will evaluate the air quality monitoring needs of the airport. Ongoing use of the environmental assessment process, to screen projects that may have a detrimental effect on the ambient air quality, will help prevent further deterioration.

3. *Collection of airplane and runway de-icing materials to prevent their run-off, onto and beyond airport property, and contaminating soil, surface or ground water should be implemented by winter 1993-94.*

Response

A mitigation plan was implemented in November 1992 to ensure the collection of spent glycol. This plan uses specialized sweepers, diking and other control processes to contain the glycol and reduce the impacts on the receiving waters. The results are continuously monitored and improvements will be made as necessary. Plans are being developed to improve de-icing facilities for the commencement of the 1993-94 de-icing season.

4. *Transport Canada should take whatever measures may be found necessary to control safety hazards attributable to birds, deer or other wildlife.*

Response

Transport Canada will continue to place highest priority on reducing safety hazards attributable to wildlife, in conjunction with other agencies such as the Canadian Wildlife Service.